To deliver capability to the warfighter … you must have spectrum access everywhere your system deploys.

- ***It's getting crowded, so plan early . . .***

You can only ensure spectrum supportability in the design.

- ***It's too late when problems are identified during Spectrum Certification***

- ***Conduct a Spectrum Supportability Analysis early in the process***

Spectrum Supportability:

The determination as to whether the electromagnetic spectrum necessary to support the operation of a spectrum-dependent equipment or system during its expected life cycle is, or will be, available.

Required during:
- **System Development**
- **Developmental and Operational Testing**
- **Operational Use**

Determined based on:
- **Receipt of Equipment Spectrum Certification (DD FM 1494)**
- **Reasonable assurance of availability of sufficient frequencies for operation (Spectrum Supportability Analysis)**
- **Consideration of electromagnetic compatibility (EMC) (Analysis/Testing)**

Applicable Directives

- **Title 47, United States Code**
- **OMB Circular A-11**
- **DoDD 5000.1 and DoDI 5000.2**
- **DoD Directive 4650.1**
- **DoD Directive 3222.3**
- **NTIA Manual of Regulations & Procedures**
- **Army**
  - **AR 70-1**
  - **AR 5-12 (Under Revision)**
- **Navy/Marine Corps**
  - **SECNAVINST 5000.2B**
  - **SECNAVINST 2400.1**
  - **OPNAVINST 2450.2**
  - **OPNAVINST 2400.20 (Under Revision)**
  - **MCO 2400 Series (In Development)**
- **Air Force**
  - **AFI 33-118**
  - **AFM 33-120**

Look for the Spectrum Special Interest Area coming soon to the Acquisition Community Connection at:

http://pmcop.dau.mil/simplify/ev.php

Spectrum Planning *for* System Design

…More critical today than ever…

For more information, contact the Defense Spectrum Office (DSO) at (703) 325-2567 or DSO@ncr.disa.mil

Spectrum Supportability

Supportability also includes:

- **Worldwide Allocations & Future Plans**

  "Cell Phones will use that frequency in Asia & Europe"

- **Host Nation Regulations & Processes**

  "Can we convince Host Nations that Software Radios will comply with their regulations and not interfere?"

- **Battlespace Performance**

  "Three other programs are planning extensive use of this band – will they be able to operate simultaneously?"

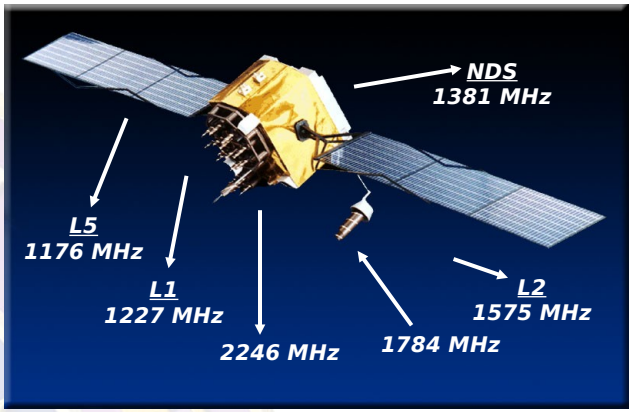
It's Spectrum Certification Compliance (a statutory requirement under DoDI 5000.2) and more. . .

Spectrum Planning ensures Spectrum Supportability

Plan, Design, Develop, Test & Manage

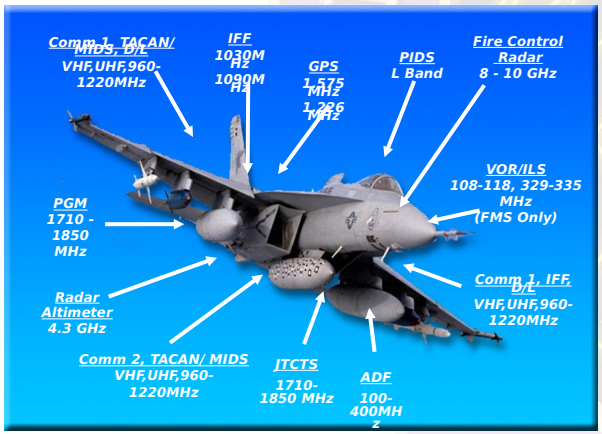
to

Reduce risk, Contain costs, and Increase operational capability



A Spectrum Supportability Analysis:

- **Investigates spectrum availability in the context of system operation**
- **Considers worldwide spectrum availability**
- **Assesses impact of potential restrictions or limitations on system use**
- **Identifies potential risk mitigation strategies**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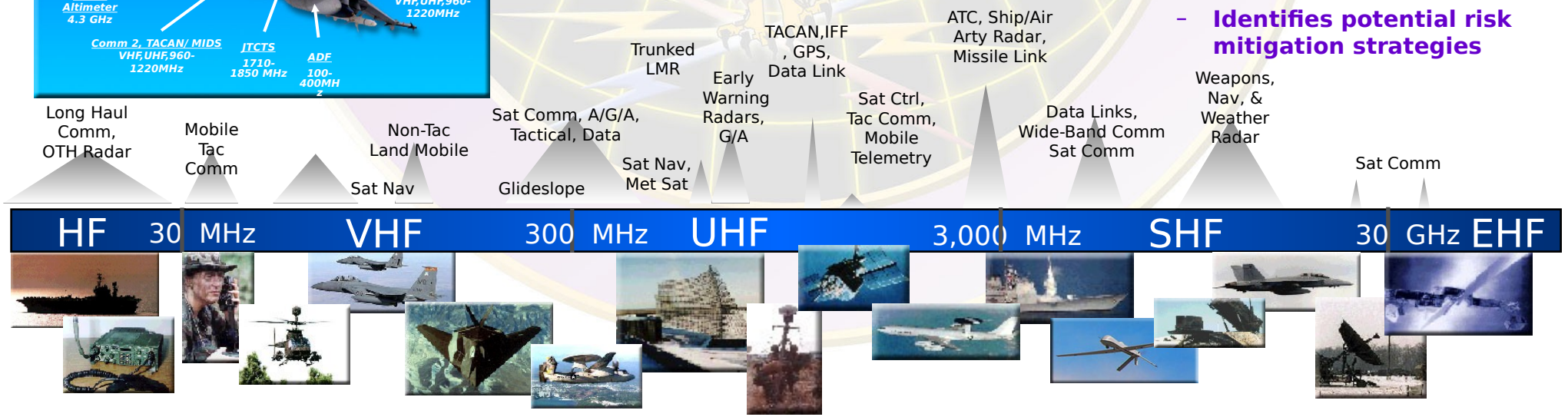
IFF 1030M Hz 1090M Hz
GPS 1,575 MHz 1,266 MHz
PIDS L Band
Fire Control Radar 8 - 10 GHz
VOR/ILS 108-118, 329-335 MHz (FMS Only)
PGM 1710 - 1850 MHz
Radar Altimeter 4.3 GHz
Comm 1, IFF, D/L VHF,UHF,960-1220MHz
Comm 2, TACAN/ MIDS VHF,UHF,960-1220MHz
JTCTS 1710-1850 MHz
ADF 100-400MHz


Long Haul Comm, OTH Radar
Mobile Tac Comm
Sat Nav
Non-Tac Land Mobile
Sat Comm, A/G/A, Tactical, Data
Glideslope
Trunked LMR
Sat Nav, Met Sat
Early Warning Radars, G/A
TACAN,IFF , GPS, Data Link
Sat Ctrl, Tac Comm, Mobile Telemetry
ATC, Ship/Air Arty Radar, Missile Link
Data Links, Wide-Band Comm Sat Comm
Weapons, Nav, & Weather Radar
Sat Comm
HF 30 MHz VHF 300 MHz UHF 3,000 MHz SHF 30 GHz EHF